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TRANSMITTAL FORM

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Application Number	10/822,276
Filing Date	04/12/2004
First Named Inventor	JAMES ALFRED WHITE
Art Unit	3724
Examiner Name	HAMILTON, ISAAC N.
Attorney Docket Number	

ENCLOSURES *(Check all that apply)*

- ☐ Fee Transmittal Form
- ☐ Fee Attached
- ☒ Amendment/Reply
- ☐ After Final
- ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Reply to Missing Parts/ Incomplete Application
- ☐ Reply to Missing Parts under 37 CFR 1.52 or 1.53
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Remarks

SPECIFICATION - DETAILED DESCRIPTION OF THE INVENTION
CLAIMS
RESPONSE TO DETAILED ACTION

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	ALLIED TRADING AND MARKETING CO., INC.		
Signature	James Alfred White		
Printed name	JAMES ALFRED WHITE		
Date	08/28/2006	Reg. No.	

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Art Unit: 3724

Response to Detailed Action

1. Drawings – The drawings have been corrected in compliance with 37 CFR 1.84(p)(5) and 37 CFR 1.12(d) with the amended drawing labeled "Replacement Sheet". A second drawing is provided with annotations indicating the changes to the Replacement Sheet. Reference numbers have been added for "teeth 16" and "window opening 17".

2. Specification – Corrections have been made as follows:

   Reference signs for "teeth 16" and "window opening 17" have been added.

   Reference signs for "lock nut 12" and "lock nut 15" have been added.

   "from 15 degrees to 25 degrees" revised to "20 degrees" per prior recommended change to Claims.

3. Claim Objections – informalities corrected as follows:

   Line 3 "chip" changed to "-chip"

Lines 5-6	"the sharp blade" changed to "a sharp blade"
Line 6	"the rotating driver teeth" changed to "rotating driver teeth"
Line 9 and 23	"to the base" changed to "to a base"
Line 11	"the drive spindle" changed to "a drive spindle"
Line 19	"the cutting edge" changed to "a cutting edge"
Line 20	"the forward" changed to "a forward"
Line 31	"the driver" changed to "-s driver"
Line 33	"a pilot" requested revision to "the pilot pin" negated by removal of a portion of this section, it being removed to avoid repeating a claim limitation.
Line 48	Lock nuts referenced by numbers to specific use:

Lock nut 15 secures the pilot pin 5

Lock nut 12 secures the driver 3

Line 50 "the the" changed to "the"

Line 51 "the sharp edge of the cutting blade" changed to "the cutting edge of the sharp blade"

Reference numbers have been added to the claim and other obvious deletions as marked to simplify the matter described .

4. Claim Rejections - 35 USC 112 – acknowledge withdrawal.

5. Quotation 35 USC 103(a) – Read and evaluated.

6. Claim Rejection issues referenced to 35 U.S.C. 103(a)

Ross 2,464,993 – Several distinct differences separate the Apparatus of the invention from this prior art:

REF.-Sharp fixed blade 9 – (cutter 9) – Fig. 4 & 5, This blade is an offset Blade as illustrated by the dash lines

in Fig. 4 and not A blade which is angled as is the blade on The Apparatus of the Invention.

REF.-Blade support 4 (plate 4) Fig.4 is a mounting plate that is attached with machine screws to the u-shaped frame arm 4 and not a blade support as illustrated on The Apparatus Of the Invention.

REF.-base bar 3 Fig. 1 and 2, this is a section of the u-shaped frame that connects the two end upright members and not a base as designated in The Apparatus of the Invention. Further "the extending flanges 6 and 7 on each side of the bar have holes to accommodate wood screws 8, these screws holding the device in place so as to make it unnecessary to employ one hand to hold the device while the other hand is rotating the crank thereof."

REF.-blade angled in column 2, line 28-34, "the other unit 9 is just a single knife set at a bias with respect to the plane of the plate 4 and extends inwardly and cuts the thing or potato along a radial plane". This prior art bears no resemblance to the blade angled feature of the Apparatus of the Invention.

REF.-blade 9 sharpened at cutting edge – single knife set line 18 "the unit 9 may be called the final slicer unit". Line 29 and 30 "just a single knife set at a bias with respect to the plane of plate 4". This is not prior art conflicting with the design of the Apparatus of the Invention.

REF.-drive spindle 22- The apparatus of the invention utilizes American Standard Uniform Thread Form 3/8 inch 16 threads per inch on the drive spindle 2. This

thread form is rarely used to translate (turn) machine parts against heavy loads. The factor which had to be overcome in the use of the American Standard Uniform Thread Form for the apparatus of the invention were maintaining engagement , friction and galling. The drive spindle 2 has continuous external threads on it's full length. The engagement of these threads required selection of length/diameter internal threads sufficient to overcome the pressures toward disengagement. Testing and experimentation was conducted to establish the length/diameter required for the drive nut 10 to function repeatedly with the thumb pressure normal to an operator of the apparatus of the invention. Additionally the material preferred for the drive spindle 2 is stainless steel due to the environment and use of the apparatus in food preparation. Beyond the drive nut sizing, factors of friction and galling had to be

controlled under the engagement pressures applied. This was accomplished with the selection of brass as a material for the drive nut. The forgoing established that American Standard Uniform Threads could successfully function under torque loads and disengagement pressures created by the apparatus of the invention in use. All other apparatus viewed in the search used the so-called translation threads of square, Acme and Buttress to accommodate the loads.

REF.-pilot pin 20, hole through which pin 20 passes. Column 2 lines 45-50 "a pointed stud 20 is fixed to the plate 4 which may be adjustably fixed thereto by providing the stud with screw threads so that it can be screwed into a tapped hole in the plate and provide a stop for the feeder plate". However the use of a pointed stud 20 is not mentioned in the Claim column 4 lines 1-

36. Rather the enlarged threads provide that feature of stopping the stem 22 when the device reaches the end of its stroke.

Column 3 line 13 " the rear end portion of the threaded stem 22 is provided with enlarged threads 33, the purpose of these enlarged threads is to force the thread engager element 21 to automatically release itself from the stem 22 when it has reached the end of it's stroke".

REF.-hole through which pin 20 (pointed stud) passes-this is a tapped hole in the "plate type member 4". The apparatus of the invention pilot pin 5 is dissimilar to this feature application in that pilot pin 5 goes through the blade 1 as a blade 1 locator and is a stop for the spindle 2 to avoid the teeth 16 of the driver 3 from contacting the blade 1 at the end of a cut.

REF. Drive nut guide 21 – with drive nut 27,28,32 requiring the use of 2 hands. Ross column 2, lines 6 through 12 are specific that the device is screwed down and is not a 2 hand operated device as is the apparatus of the invention; "wood screws 8, these screws securely holding the device in place so as to make it unnecessary to employ one hand to hold the device while the other hand is rotating the crank handle thereof."

REF. Means for manual cranking – 24,25,23. The crank handle 4 of the apparatus of the invention is not a unique characteristic of the invention. However to accomplish the manual hand rotation of the device a crank handle 4 is utilized. As stated in the claim " a means for cranking with a handle 4" is for illustration of the operation of the invention.

REF. Crank handle 24 – See Means for manual cranking paragraph above.

REF. Drive nut 32,27,28 – Ross "thread engager 32" is a fixed hinged element which can lock into position to provide forward travel of the mating spindle 22 and square threads permit such engagement. The apparatus of the invention employs American Standard Uniform Thread Form of 3/8 inch 16 threads per inch; this is not a square thread. The drive nut 10 attached to a drive nut guide 11 manually engages to the drive spindle 2 for 2 handed operation with this design essential to the application of the American Standard Uniform Thread Form. It is the 16 threads per inch, which moves the drive spindle 2, forward approximately .062 inch per with each revolution. Square thread and Acme thread forms of nominal 3/8 inch diameter do not provide the

16 threads per inch as is essential to the apparatus of the invention. The higher engagement pressure is compensated for by the design of the apparatus of the invention.

REF. – window opening 26. The "bearing sleeve has an open portion" which is provided to permit the engager 32 to mate with the stem 22.

REF.- Driver with 4 flat teeth 34, 35. Feed Plate 34 is fixed to the stem 22 and has a plurality of tooth-like elements. The function of distributing torque sufficient to drive a potato varies between Ross 993 and the apparatus of the invention. Mechanically the projections must pierce the potato and the length, shape and thickness varies with the available space to accommodate them during and at the end of a cut. The function of driving the potato is the same between Ross

and the apparatus of the invention but the design is different.

REF.-Pilot in alignment with drive spindle centerline in column 2 line 45-50. Machinery from lathes, drills, mills etc. function with having an alignment between a rotational component normally a holding device and as with a lathe tailstock. The apparatus of the invention references this conspicuous element in both the specification and claims, it being common but necessary to machinery design.

REF.-Lock nut for pilot pin and elements 9 & 10 fig. 5 Ross locates a stud 20 adjacent to blade 9 and the plurality of short knives or blades 11 and secures with a locknut which is not reference numbered. Piloting of the product being shredded appears to be the only function with tapered threads of the threaded stem 22 providing disengagement of the forward travel. The apparatus of

the invention utilizes the pilot pin as a pilot for the product, stop for the forward travel of the spindle, and is intentionally inserted through a hole in the blade to put the blades cutting edge at it's nearest position to the center of that pin.

REF, - Drive support 5 – Ross uses a frame 2 to provide support for the component parts of the shredding machine. This frame is then screwed or bolted to a table or bench, or clamped as is Robb 240,186 (1881). The apparatus of the invention differs in that individual components are utilized, blade support 6 and drive support 7 mounted on a base 8 which becomes and assemblage of components mounted to them; and does not require being screwed or bolted to a table etc. as it is designed with the (4) support legs 9 and (2) counter stop arms to be secured in operation by the placement of the hands of the operator.

REF.- Lock nut for securing driver to drive spindle Column 3, lines 23-28. "Feed plate 34 is fixed rigidly to the end 22' of the shaft or stem 22 which may be done by providing a threaded female bossed portion on the side of the plate 34 and which is engaged by the end 22' of the stem 22". This differs from the apparatus of the invention driver 3 which has a drilled and tapped (threaded) through hole in the center for mounting. A lock nut 12 is threaded onto the drive spindle 2 followed by the driver 3. When the driver 3 is in the proper position on the end of the drive spindle 2 the lock nut is tightened against the driver 3 to secure it in that position.

Mason 2,489,581– Distinct differences separate the Apparatus of the invention from this prior art:

REF.- Fixed vertical blade 13 angled horizontally at an angle perpendicular to the drive spindle. The blade of Mason is blade 2 which extends crosswise of the frame with cutting edge 13 lying substantially in the vertical plane of the screw axis and midway over the base member 5 of the frame. The blade 2 section above the mounting portion is arranged at a slight angle to a transverse plane, the angle corresponding to the angle of the thread (angle approximates 5 degrees). Column 3 line 29-31 " a transverse blade having a cutting edge lying substantially in the vertical center plane of the screw". The blade 1 of the apparatus of the invention does not lie in the vertical center plane but rather has an offset approximating 5/32 inch from the spindle centerline to the blades sharp edge.

Mason 2,3211,202– Distinct differences separate the Apparatus of the invention from this prior art:

REF- Fig 2 and Fig 3 illustrations show tapered supports for the device, which are neither numbered nor identified As to material.

REF- Hole 14 through which pilot pin passes. Column 8 line 44-47 each of the cutters 113a, 113b and 113c are journaled for rotation on the corresponding attachment 28a, 28b and 28c at 114 adjacent to the cutting blade 29. Column 9 line 12-14 "at 114 where it is journaled for rotation which rotation is received from the potato through gripping means 116". The cutters and not the pilot pin are associated with the hole in the blade of Ross.

Waller 2,156,645– Distinct differences separate the Apparatus of the invention from this prior art:

REF- Two metal spring type counter stop arms in fig. 1 (figure 1 side view) Page 2 Column 1 Line 9-12 " a frame structure 1 provided with adjustable spring clip means 2

to provide for mounting the device on a suitable support 10 such as a table, bread board or the like". This is a single clamp that mounts the device. The apparatus of the invention is not mounted, is placed unattached on the top of a counter and secured during operation as claimed by (2) counter stop arms 14 and the (4) rubber support legs 9 with downward pressure by the operator during use.

REF- Pilot pin 8a passing thorough a hole 12 in blade 13 to support weight of potato and guide pilot pin. Pg 2 Column 2 Lines 32-39 "plate 16 and the shaft 8 cooperate to support the potato for rotation" Pg 2 Column 1 Lines 36-37 "Guiding plate and cutting blade assembly 13". This is a distinct difference from the apparatus of the invention.